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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/645,798

08/22/2003

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EXAMINER
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SHOSHO, CALLIE E

ART UNIT	PAPER NUMBER
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1714

MAIL DATE	DELIVERY MODE
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09/11/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/645,798

Applicant(s)

KAWAGUCHI, TAKASHI

Examiner

Callie E. Shosho

Art Unit

1714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 14 June 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-3, 5, 6 and 8-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5, 6 and 8-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 4/20/07.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

1. All outstanding rejections are overcome by applicant's amendment filed 6/14/07.

In light of the use of a new reference against the present claims, namely, Sawada et al. (U.S. 5,772,746), the following action is non-final.

**Claim Rejections - 35 USC § 112**

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-3, 5-6, and 8-9 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 1 has been amended to recite "the second resin particles comprising only acrylic resin particles". It is the examiner's position that this phrase fails to satisfy the written description requirement under the cited statute since there does not appear to be a written description requirement of the cited phrase in the application as originally filed, *In re Wright*, 866 F.2d 422, 9 USPQ2d 1649 (Fed. Cir. 1989) and MPEP 2163.

As support for the above amendment, applicants point to paragraphs 7-9, 12-13, 25, and original claims 4 and 7. However, while these portions of the specification disclose that the resin particles contained in the color ink may be acrylic resin particles (paragraph 9) and that the resin

particles contained in the color ink are acrylic resin particles (original claim 7), this does not provide support to recite second resin particles “comprising” acrylic resin particles. While there is support in the specification as originally filed to recite that the second resin particles are acrylic resin particles, there is no support to recite second resin particles “comprising” acrylic resin particles. Such change broadens the scope of the claim with respect to the second resin particles given that the second resin particles are now open to the inclusion of any type of resin particles. However, there does not appear to be support for such recitation in the specification as originally filed.

4. Claims 10-12 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Newly added claim 10 recites “first resin particles comprising non-acrylic resin particles”. The cited phraseology clearly signifies a “negative” or “exclusionary” limitation for which the applicants have no support in the original disclosure. Negative limitations in a claim which do not appear in the specification as filed introduce new concepts and violate the description requirement of 35 USC 112, first paragraph, *Ex Parte Grasselli, Suresh, and Miller*, 231 USPQ 393, 394 (Bd. Pat. App. and Inter. 1983); 783 F. 2d 453.

As support for such phrase, applicants point to paragraphs 7-9, 12-13, 25, and original claims 4 and 7. However, it is noted that the insertion of the above phraseology positively

excludes acrylic resins as the first resin of the black ink, however, there is no support in the present specification for such exclusion. While the present specification is silent with respect to the use of acrylic resin as the first resin, is noted that as stated in MPEP 2173.05(i), the “mere absence of a positive recitation is not the basis for an exclusion.” Further, while it is agreed that literal support in the specification is not necessarily required, nevertheless, there is nothing on the record at the time of the filing of the original specification to support the amendment to exclude certain materials, i.e. acrylic resin, as the first resin particles. It is noted that the insertion of the phrase “non-acrylic resin particles” into the claims introduces new concepts given that the express exclusion of certain elements implies the permissible inclusion of all other elements not so expressly excluded. Thus, in the present claims, the express exclusion of acrylic resin particles as the first resin (by the use of the phrase “non-acrylic”) implies the inclusion of all non-acrylic resin particles as the first resin for which there is no support in the specification as originally filed.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-3, 5-6, and 8-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 has been amended to recite second resin particles “comprising only acrylic resin particles”. The scope of the claim is confusing in light of the use of both open claim language,

i.e. “comprising”, and closed claim language, i.e. “only” to describe the second resin particles. It is not clear how the second resin particles can both be open to the inclusion of additional resins but also limited to only acrylic resins. Clarification is requested.

**Claim Rejections - 35 USC § 103**

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35

U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. Claims 1-3, 5-6, and 8-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ma et al. (U.S. 6,247,808) in view of Sawada et al. (U.S. 5,772,746).

Ma et al. disclose color ink set comprising (i) black ink comprising water, solvent, black pigment, dispersant, non-acrylic polymer, and pH adjusting agent, i.e. organic amine, and (ii) colored ink comprising water, solvent, coloring pigment, dispersant, acrylic polymer, and pH adjusting agent, i.e. organic acid. It is disclosed that the black ink possesses pH of about 8 while

the colored ink includes magenta ink possessing pH of about 3 and yellow ink comprising pH of 2.5-4. There is further disclosed ink cartridge containing the ink set (col.1, lines 13-15, col.4, lines 20-35 and 40-57, col.5, lines 10-21, col.6, lines 1-8 and 25-28, col.7, lines 36-40, col.8, lines 21-23, 39-44, and 48, col.9, lines 41-col.10, line 15, col.11, lines 9-11, and col.12, lines 11-34). It is noted that the disclosure that the pH of the black ink is "about" 8 clearly encompasses presently claimed pH in claim 2 of 8.7.

The difference between Ma et al. and the present claimed invention is the requirement in the present claims of black ink comprising resin particles having carboxyl groups.

It is noted that Ma et al. disclose that non- acrylic polymers are added to the inks to improve various properties of the ink (col.11, lines 9-11), however, there is no explicit disclosure of specific resin as presently claimed.

Sawada et al., which is drawn to ink jet inks, disclose the use of carboxyl-containing polyester in order to provide ink with good fixing ability and storage stability wherein the ink does not clog the printer nozzles (col.4, lines 26-33 and 35-36).

In light of the motivation for using polyester having carboxyl groups disclosed by Sawada et al. as described above, it therefore would have been obvious to one of ordinary skill in the art to use such polyester having carboxyl groups as the non-acrylic polymer in the black ink of Ma et al. in order to produce ink with good fixing ability and storage stability wherein the ink does not clog the printer nozzles, and thereby arrive at the claimed invention.

**Response to Arguments**

9. Although the examiner is utilizing new grounds of rejection as set forth in paragraph 8 above, given that some of applicant's arguments still apply to the present rejections, the examiner responds to such arguments below.

Specifically, applicant argues that the combination of references does not teach or suggest ink set in which color ink is different than black ink.

However, given that Ma et al. disclose that the black ink possesses different colorant, pH, and pH adjuster than the color ink, it is clear that the color ink is different from the black ink as presently claimed. While it is agreed that Sawada et al. do not disclose ink set wherein the black ink is different than the color ink, however, note Sawada et al. is used as teaching reference, and therefore, it is not necessary for this secondary reference to contain all the features of the presently claimed invention, *In re Nievelt*, 482 F.2d 965, 179 USPQ 224, 226 (CCPA 1973), *In re Keller* 624 F.2d 413, 208 USPQ 871, 881 (CCPA 1981). Rather this reference teaches a certain concept, namely, the use of polyester having carboxyl groups in ink jet inks in order to produce ink with good fixing ability and storage stability wherein the ink does not clog the printer nozzles and in combination with the primary reference, discloses the presently claimed invention.

Applicant also argues that one of ordinary skill in the art would not be motivated to include a particular constituent in one of the color ink or black ink and not the other.

However, on the one hand, given that when combining Ma et al. with Sawada et al. the choice for using the polyester having carboxyl groups is either in the black ink, the color ink, or



both, which is not vast number of choices from which one of ordinary skill in the art must select, it therefore would have been obvious to one of ordinary skill in the art to utilize the polyester of Sawada et al. in any or all of the inks of Ma et al. including the black ink alone, and thereby arrive at the claimed invention.

Further, even if one were to utilize the polyester of Sawada et al. in both the black ink and the color ink, there is nothing in the scope of the present claims to exclude such addition. In light of the open language of the present claims with respect to both the color ink and the second resin particles, i.e. comprising", it is clear that the ink set of present claim 1 is open to the inclusion of additional ingredients in both the black ink and color ink including polyester having carboxyl group as disclosed by Sawada et al.

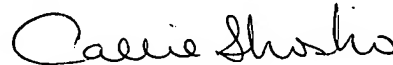
With respect to claim 10, while it is noted that the black ink of Ma et al. requires the use of carboxylated dispersant, in light of the open language of present claim 10, i.e. "comprising", it is clear that the first resin of the black ink is open to the inclusion of additional resin in addition to non-acrylic resin.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie E. Shosho whose telephone number is 571-272-1123. The examiner can normally be reached on Monday-Friday (6:30-4:00) Alternate Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1714

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Callie E. Shosho  
Primary Examiner  
Art Unit 1714

CS  
9/2/07